

Advanced Methodologies of Research in Social Science and Humanities

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Are Vandals Welcome? A Case of Social-mediatisation of Research on Free-to-edit Encyclopaedias

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Abstract

Research has shown that students as well as research scholars utilise encyclopaedias (directly or indirectly), such as Wikipedia, RationalPedia, or now-dead Nupedia, regardless of the nature of such resources, at different stages of research. Such encyclopaedias leave a huge impact on scholarly communication. The confirmation bias of the researcher, promoted by the search engines, threatens the integrity of these virtual spaces and the data collected thereof. These encyclopaedias deploy various resources ranging from article review, reversions, vandalism protection and AI bots in order to detect such attempts of vandalism. This in turn encroaches upon their open nature. In this paper, a humble attempt will be made to establish that research on the free-to-edit encyclopaedias is undergoing a phenomenon of what is known as “social-mediatisation” (interference of the content of Web 2.0, which might include fake news, misinformation, conspiracy theories and opinionated narratives, with articles, resources and references on such encyclopaedias). Social media trends and “hashtags” leave an impact on the research that leads to creation of free-to-edit articles. Not only are such articles deformed to reflect popular beliefs, but they are also backed up with references to external resources in a way that suggests a legitimate “edit”. It will be shown how the vandalism-protection mechanism of such encyclopaedias fails to account for such attempts of “soft vandalism”.

Keywords: *Vandalism, Editwars, Confirmation Bias, Social-mediatisation, Web 2.0*

Introduction

Human beings have been described as “informavores” (“active information foragers”), a species whose need to find and gather information matches their need for food (Markant et al.). To cater to that need in the information age, free-to-edit encyclopaedias have evolved as a big alternative to information locked behind paywalls. Wikipedia, one such encyclopaedia, has a huge readership with around 5.5 million monthly visits, making it the seventh most visited website at least in the US (*Most Visited Website - 1996/2022 - Statistics and Data*). Since its conception as a free-to-edit, open and non-profit encyclopaedia, it has risen to be the world’s top-referenced website (Okoli et al. 3). Wikipedia is edited at a lightning speed of 2.1 edit per second (an average edit of 19.59 edits per article); an average of 594 new articles are added to Wikipedia every day (*Wikipedia:Statistics - Wikipedia, 2022.*). While the knowledge value of Wikipedia has much been in debate, studies have suggested the reliability of the information found on Wikipedia (Fallis). According to the results of a survey, 54.4% of the 105 university faculty members surveyed perceived Wikipedia to possess either moderate or high levels of credibility, 26.6% viewed it as having limited credibility, and 20% deemed it as having no credibility whatsoever (Dooley). In this paper, we will explore how Wikipedia has traditionally been rejected as being useful in research and education. Moreover, we shall examine the changing views regarding Wikipedia. We will also look at how search engines and social media are giving birth to what we call “soft vandalism”.

Experts have always been uncomfortable with the open collaboration model encyclopaedias and the knowledge generation thereof. This mistrust of towards Wikipedia can be summed up in the words of Michael Gorman, former president of the American Library Association: “a professor who encourages the use of Wikipedia is the intellectual equivalent of a dietician who recommends a steady diet of Big Macs with everything” (Jemielniak qtd. in De Mul 1). Other issues such as the asymmetry of information across versions of Wikipedia pages served in different languages (Wikipedia is served in more than 300 languages), also fuel this mistrust (Roy, Bhatia & Jain). The anti-expert tendencies of the open collaboration model of Wikipedia have led experts to call it “digital Maoism” (Lanier) according to whom “reading a Wikipedia entry is like reading the bible closely. There are faint traces of the voices of various anonymous authors and editors, though it is impossible to be

sure” (ibid. 1). However, these perspectives have faced pushback and are now perceived as dismissive of advancements in technology. These outdated views are driven by traditional notions of accuracy which need a readjusted. The Internet as the medium of scholarly communication has its own nuances. The collective “hive” of the minds works as a communal structure; Wikipedia being a part of what has been termed as the “global brain” (de Mul 107) wherein the article becomes public property, leading to the effacement of opinionated arguments (Bryant). Evaluating Wikipedia’s credibility through traditional lenses would not be fair. It has been argued that Wikipedia constitutes a challenge to the prevailing model of knowledge dissemination, and that it re-evaluates the traditional authority and perks that come with it in academia (Eijkman). Notwithstanding that, Wikipedia’s open collaboration model itself harbours certain dangerous loopholes that are being exploited by vandals on daily basis.

Students utilize Wikipedia as a tool for conducting research, as evidenced by the Pew Research Internet Project Survey. This approach to research is characterized by its efficiency and assignment-oriented nature, resulting in a diminished emphasis on intellectual curiosity (Purcel et al.). However, Wikipedia provides students with useful tools such as portals and message boxes as well. In fact, teachers assigning projects to students, urge them to use resources which are most appropriate (which includes Wikipedia) for the assignment (ibid.). Kurmas suggests that students learning foreign languages should be encouraged to participate in the Wiktionary’s collaborative addition and revision of inflections.

Paul Börsting and Maximilian Heimstädt argue that early-career researchers (ECRs), contributing to Wikipedia may provide an alternative to the “publish or perish” mentality (De Rond & Miller 321). Concurrently, Wikipedia provides individuals with an opportunity to leverage their expertise and have a significant impact on society. (Börsting & Heimstädt, 2021, pp.2-5). Börsting and Maximilian suggest that:

The great but underappreciated advantage of Wikipedia is that it allows researchers to communicate research results and scientific expertise in exactly the place where people look for it: in topical Wikipedia articles. In this way, Wikipedia provides one of the most straightforward and effective means to share knowledge and to leverage research findings towards societal impact. Engaging with the vibrant community of co-editors on Wikipedia is also not a one-way street but in turn can broaden one’s horizon and potentially inspire future research (2).

With the evolution of research software, the clouds of doubt looming over the credibility of Wikipedia have started to fade. For instance, Viégas, Wattenberg, and Kushal developed a statistical tool called “history flow” tool. The history flow tool studies the pattern of collaboration in the information space. Viégas et al. conclude that three main principles of Wikipedia, namely “Watch list”, “talk pages” and “neutral point of view” policy (NPOV) make Wikipedia a desirable and suitable space for the generation of collective knowledge. Not only do these features lead to a more sophisticated generation of knowledge, but they also try to preserve the personality of the individual authors involved (which is desirable). One can track the development and progression/regression of an article by tracking its history. In fact, things that cannot make it to the article proper are not sidelined but given their proper space in “talk pages”.

The readership of Wikipedia not only comprises students but different professionals including research scholars, journalists and librarians who claim the facts gathered from Wikipedia as “background” without any fact-checking (Garfinkel). The technological ease that Wikipedia facilitates in collaboration with search engines (which will be discussed later in the paper), attracts a lot of readers. The advent of Simple English Wikipedia has shown the power of peer collaboration, making research scholars find Wikipedia to be more readable and convenient (Yasseri & Kertesz). Wikipedia is used as a source of information to back up claims that such professionals make. An illustration of this phenomenon in practice can be seen in the documentation of the inadequate response to Hurricane Katrina, where Wikipedia served as a source of information. (Chua, Kaynak, & Foo). Wikipedia’s role as a source of information as utilized by journalists in terms of news has seen an increase. This has given rise to the perception that Wikipedia is neutral and positive. This further legitimizes the use of Wikipedia for research (Messner & South). This explains why Wikipedia forms an important part of scholarly communication.

The internet plays a pivotal role in scholarly communication. It has evolved to become one of the most needed tools for research scholars from social sciences to the natural sciences. *The Sage Handbook for Online Research* outlines the novelties that the internet both as a tool for research as well as a medium of scholarly communication has introduced into the field of traditional research. In research, the internet is used for online surveys, social simulations, data visualisation and processing, content analysis, artificial intelligence, storing and archiving results etc. However, one must bear in mind that it comes with its own set of problems. One of such problems is the digital divide

within a country, between and among countries, among different age groups, among different genders etc.

Students and scholars find Wikipedia a convenient resource where they can access multiple facets of the same issue. This compromise of credibility to convenience may explain why researchers and students prefer Wikipedia.

Wikipedia as an encyclopaedia is not interested in truth as its policy itself states that verifiability is the only threshold of inclusion. If anything can be backed up using published sources, it can be untrue or vague but it qualifies for inclusion into Wikipedia main space articles ("Wikipedia: Verifiability - Wikipedia"). Moreover, Wikipedia prefers the latest resources to old ones. This especially becomes important during *editwars* as the *editwarriors* are always trying to prove their claims to be verifiable even though common sense might suggest otherwise. The burden of exercise of caution is put on the editor's shoulders while choosing different sources such as online newspaper columns (blogs). Disputed content is also side-lined by the Wikipedia community as the contributor has to achieve a consensus for their material to be considered for inclusion (ibid.). While Wikipedia does call for a neutral point of view (NPOV), it still side-lines the viewpoints of "tiny-minority". This is further complicated by Wikipedia's preference to English sources in terms of their verifiability. Wikipedia does disclaim itself as being of value to research (one of the reasons being its "no original research" policy), however, researchers find it convenient to fall back to Wikipedia and use the content directly or indirectly (by following the chain of references or websites mirroring Wikipedia articles, for instance).

The problems of Wikipedia are further complicated by search engines. Search engines form a big part of our experience of the internet: they determine our usage and access of the information. Research scholars use search engines while reviewing literature, developing research methods, harvesting survey data or processing the same. These search engines use algorithms that rank pages according to a predefined ranking system, preferring one source of information to another. Search engines have limited the user's navigation to the search results page itself. This makes the researcher a passive user who fits into the random surfer model, clicking whatever results the search engine comes up with (Geigl et al.). The user's behaviour can be gauged by Pirolli's Information Foraging Theory which applies the behavioural ecology model to describe humans in the information space as predators (Pirolli 2007). Researchers in the information space consider sources as a weapon to take down the claims of the other sources.

Accordingly, the personal biases and beliefs creep into the otherwise selfless and objective research (which of course is questionable itself). This is what Nickerson means by confirmation bias: a phenomenon whereby an individual is selective and prejudiced towards the data or information that confirms their existing beliefs (Nickerson). The issue of confirmation bias is further compounded by the search strategies including structuring the search queries and the tunnel vision that the search ranking system induces (ranking “most important” results on the top, for instance). Our searches are actually directed towards seeking information that we already have in mind.

The roots of this bias have been aptly summed up:

While selective search induces individuals to specifically search for confirming information, biased interpretation makes them discredit any disconfirming information and rely heavily on confirming information. The underlying reasons behind these two biases have been attributed to three factors: 1) individuals’ need for self enhancement – i.e., their desire to hold a positive view of themselves (Taylor and Brown 1988); 2) individuals’ need for consistency – i.e., their desire to avoid cognitive dissonance (Festinger 1957; Swann et al. 1987); and 3) individuals’ need to minimise cognitive effort – i.e., their desire to use minimum cognitive resources during search tasks (Nickerson, as cited in Kayhan).

It could be argued that the bias is further compounded by search engines in the information space (which can be termed as tunnel vision). Citing Craswell et al., Leong et al., Yue et al., Kayhan notes:

Search engines have also been shown to contribute to confirmation bias. For example, individuals’ selection of links are influenced by the ranking of links, attractiveness of captions used for links, and the domains of links provided in search results.

Furthermore, mobile internet has led to the popularity of concatenated results:

Also, search engines have been shown to favour links that provide a “yes” answer for the question being searched – when the search is answered by a “yes” or “no” (White as cited in Kayhan)

McMahon et al. (2017) discuss the symbiotic relation of Google and Wikipedia: Wikipedia relies on Google for its readership and in turn Wikipedia hosts answers to a lot of Google’s queries, thus making it a rich experience for the reader/user. Studies have shown that search engines and social media platforms are never content-neutral (Cardenal). Data-driven internet tailors surfing experience according to the user’s preoccupations and preferences with or without the user’s consent/knowledge. Such users are exposed to select media coverage from news-referred platforms like Facebook and Google (ibid.). Since people

have started to replace older forms of information media with search engines (Kink), this quadruples the risk of users forming an opinion in the absence of complete information. The readers/researchers are pushed into an echo chamber where everything somehow seems to follow their beliefs. The minority voices are further pushed down in this page-ranking system. On the issue of top and bottom ranking, Blanke suggests that, “Google works on this assumption that the subjectivity of its World Wide Web (WWW’s) user is structured similarly to that of the professional researcher”.

Data redundancy is another problem with search engines especially when they are trying to locate exact words or phrases. The same information or even the same articles might be hosted by multiple websites “thus giving the impression of an independent confirmation” (Russo). A 2009 study concludes that search engines rank Wikipedia among top 10 results. The study also found that articles related to medical science were far superior to other search results on search engine results pages (SERPs) on multiple search engines (Laurent). While this trend has diminished for medical queries, it has gained ground in other areas, taking up to 85% viewing area of SERPs (desktop). As has been said, Google tends to rank results that tend to be fairly simple and in a yes/no format (Kayhan). The content thus freely created by contributors makes it easy for the search engines to display results more accurately. The volunteer-created Wikipedia content is mirrored, verbatim or in the form of links/i-frames, on other social media platforms like Reddit, Answers.com, Quora, Reference.com, Twitter, Wiki-How-To etc. This further improves the ranking of Wikipedia articles (Meier). Furthermore, the advent of snippets on SERPs such as “Knowledge Panel” entails this reliance (Piccardi, Vincet). The popularity of voice assistants like Siri, Google Assistant, Alexa etc., is also an important factor contributing to this dependency. Traditionally, SERPs stood for “10 blue links” that tried to display the most accurate results based on the user input. However, with the evolution of the internet, the search engines seem to be promoting Wikipedia articles without any consideration for their credibility or authenticity. For instance, 11% of Wikipedia articles have been tampered with at least once. Wikipedia articles are verifiable only to the extent that the facts presented corroborate with those of the sources referred to. In that sense, these citations are useful only for the contributors who wish to challenge such information and/or contribute to the article further. Garfinkel discusses the case of Futurist Jaron Lennier, who coined the term “digital Maoism” to denote Wikipedia’s mobocracy. His has been the case of one living person standing against a crowd of editwarriors trying to establish his identity as a “computer scientist, composer,

visual artist, and author” and not a film director. While he had taken it upon himself to rectify the article about him, he every time found his edits being revoked or re-edited. The point in case being that there are several sources that one can refer to if one wanted to make him into a film director. This is just an example of what we must call “soft vandalism”, which is to be distinguished from the hardcore zeal of vandals aiming at defacing articles they have a personal bias against. The Internet hosts a huge amount of searchable data which makes it more possible than ever before.

Since Wikipedia follows an open collaboration model, the search engines play a crucial role in structuring its information. Contributors can easily manipulate search engines in order for their soft-vandalism to go undetected. With around 1×11^9 total edits, a feat that other free encyclopaedias such as Citizendium failed to achieve, there is a room for a lot of personal biases creeping into the articles. Users who indulge in rapid editing and reediting (edit warriors), repeated revocations, ‘baby and bathwater’ practices usually trigger the ‘bots’ of Wikipedia that deftly handle this kind of vandalism. The competence of these bots was tested and established in 2015 when the Wikipedia pages of Donald Trump, Harry and Bill Clinton were vandalised. Wikipedia, in fact, has a bright line rule against repeated reverts (systems like three-revert-rule or 3RR offers a cool down period of 24 hours) (“Wikipedia:Edit warring - Wikipedia”). Apart from that, Wikipedia has a protection policy for threatened articles that can be applied by the administrators. Such policies may be applied indefinitely or for a given period of time based on the requirement and the nature of the article involved. Wikipedia moves certain articles to semi-protected categories which attain immunity against edits from non-autoconfirmed users. (“Wikipedia:Protection policy - Wikipedia”). Other types of protections even prevent renaming, creation, uploading and editing of an article. Closing down an article this way prevents the development of the same.

The real problem that threatens the existence of Wikipedia is the vandalism that goes under the radar. Since there is a motive of defacing the page, it must be seen as soft-vandalism. Such vandals refer to unreliable and often misinterpreted sources in order to prevent reversion of their edit. A case in point would be the vandalism of John Seigenthaler, Sr.’s Wikipedia page. The vandal in question included certain defamatory remarks against him which went unnoticed by the bots because the contributor cited sources for their claims. It was not until five months had passed that the false information was uncovered by Seigenthaler’s friend Victor S. Johnson, Jr. Owing to the dependency of search engines and encyclopaedias, this vandalism

shows up in search results as well as on other websites that mirror Wikipedia. When the search engines rely on the promotion of such information whose credibility cannot be established, it leads to mass misinformation in general and behavioural changes in particular.

The concept of soft-vandalism has to be studied along with the emergence and coup d'état of traditional communication channels by Social media. Social media is the *Zeitgeist* of the 21st century leaving its impact on every single fact of human life: art, literature, morality, legislature, philosophy etc. In fact, it has successfully replaced the traditional news media, with people relying more on it for news (Gottfried & Barthel). Studies suggest that almost 88% Americans agree that social media sites influence news (traditional mass media) in one way or the other (with 62% people agreeing that social media sites have “too much control” on the news that they run on their websites) (Shearer). Emergence of social media as the alt-media has its repercussions as well. The study notes, these social media websites lead to “a worse mix of news” for the users (*ibid.*). Social media works through social filters in order to “recommend” what the system deems useful and relevant to the user's preferences and browsing habits. Users thus bombarded with news in an echo chamber tend to feel overloaded by the news which leads to a decreased efficacy of news on social media (termed news overload, as derived concept of information overload by Alvin Toffler) (Park). Elia Periser calls it “filter bubble”. It is not hard to understand how social media can replace mass media as a tool to propagate political agendas. Take the example of the US Presidential election (2014) or Brexit Referendum in the UK the same year. Experts believe that both of them were rigged by these filter bubbles and echo chambers (DiFranzo & Gloria-Garcia).

This all takes shape of a deadly spiral: social media outrages, trends, viral ‘story posts’, get their share of coverage on news media (both on social media as well as in the form of mass media); at the same time tweets, stories, posts and hashtags spread such news snippets to every nook and corner of the web. Trend jacking defines how celebrities and media outlets jump into all trending topics on Twitter, Instagram and Facebook in order to keep themselves relevant in the users' news feed. Such news is often half-truth, improperly researched and sometimes ends up as being fake news. Since search engines aim to present the most accurate and relevant results (which takes into consideration the browsing habits and preferences of the user), they tend to propagate this phenomenon. We should see this as the social-mediatisation of news channels which in turn leads to the social-mediatisation of encyclopaedias that follow an open contribution model. Even though

Wikimedia launched Wikinews back in 2004 in order to prevent Wikipedia from being another breaking-news platform, Wikipedia cannot help but emerge as a space for news. In fact, Wikipedia describes itself as “the largest form of participatory journalism to date” (Lih 1) and has been a preferable news source (Messner & South).

If the open contribution model is the culprit, does confining contributions to experts only provide a solution? The case of Citizendium is of interest here. Citizendium as a wiki boasts of around 17519 articles. The policy of Citizendium being that it “prefers articles that are objective and remain free of advocacy, advertisement, and sensationalism,” (“CZ:Objectivity Guidance - Citizendium”, 2022) . The wiki also tries to give proper space to dissent and contradicting views. The limitation, however, is that it doesn’t have many experts for different subjects on board. This makes the wiki almost a lopsided affair. Moreover, Citizendium might be free to read but the editing/ contribution involves a lot of “paperwork” so as to speak. Furthermore, Wikipedia’s open contribution model is sometimes preferable to closed sources when inaccessible to the researcher.

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